

**BATTERY CIRCUIT WITH NON-VOLITABLE MEMORY  
AND THERMISTOR ON A SINGLE LINE**

**ABSTRACT OF THE DISCLOSURE**

A system (200) includes a battery charger (278) and a battery (202). The battery (202) includes a thermistor (230), a voltage identifying element (240), a switch (244), a memory device (232), and a battery data contact (228), connected to a data port of the memory device (232) and the voltage identifying element (240). The voltage identifying element (240) determines a voltage that controls the switch (244). When the switch (244) is enabled, the thermistor (230), connected to a battery clock contact (224), is active and a microprocessor (102) on the battery charger (278) reads the value of the thermistor (230) via an analog-to-digital converter. When the switch (244) is disabled, the thermistor (230) is switched out and the battery clock contact (224) is used to clock the memory device (232). The battery charger (278) has a data contact (226) for receiving the battery data contact (228) and a clock contact (222) for receiving the battery clock contact (224). The battery charger (278) further includes at least two switches (204,206), and the microprocessor (102) is programmed to selectively operate the switches (204,206).